IP Routing Between Modules on a PLC Backplane

Abstract

The present invention relates to a communications system in a programmable controller comprising smart modules, a network module connected to a TCP/IP network and an internal communications bus, for example the backplane bus connecting all the modules of the programmable controller with each other. The communications system enables exchanges of information in compliance with the TCP/IP protocol, to be performed on the internal communications bus. Each smart module has its own IP address and a TCP/IP stack. The communications bus includes several separate communications channels providing for simultaneous flow of the frames complying with the TCP/IP protocol together with frames complying with other protocols. The invention also relates to a programmable controller capable of implementing such a communications system.